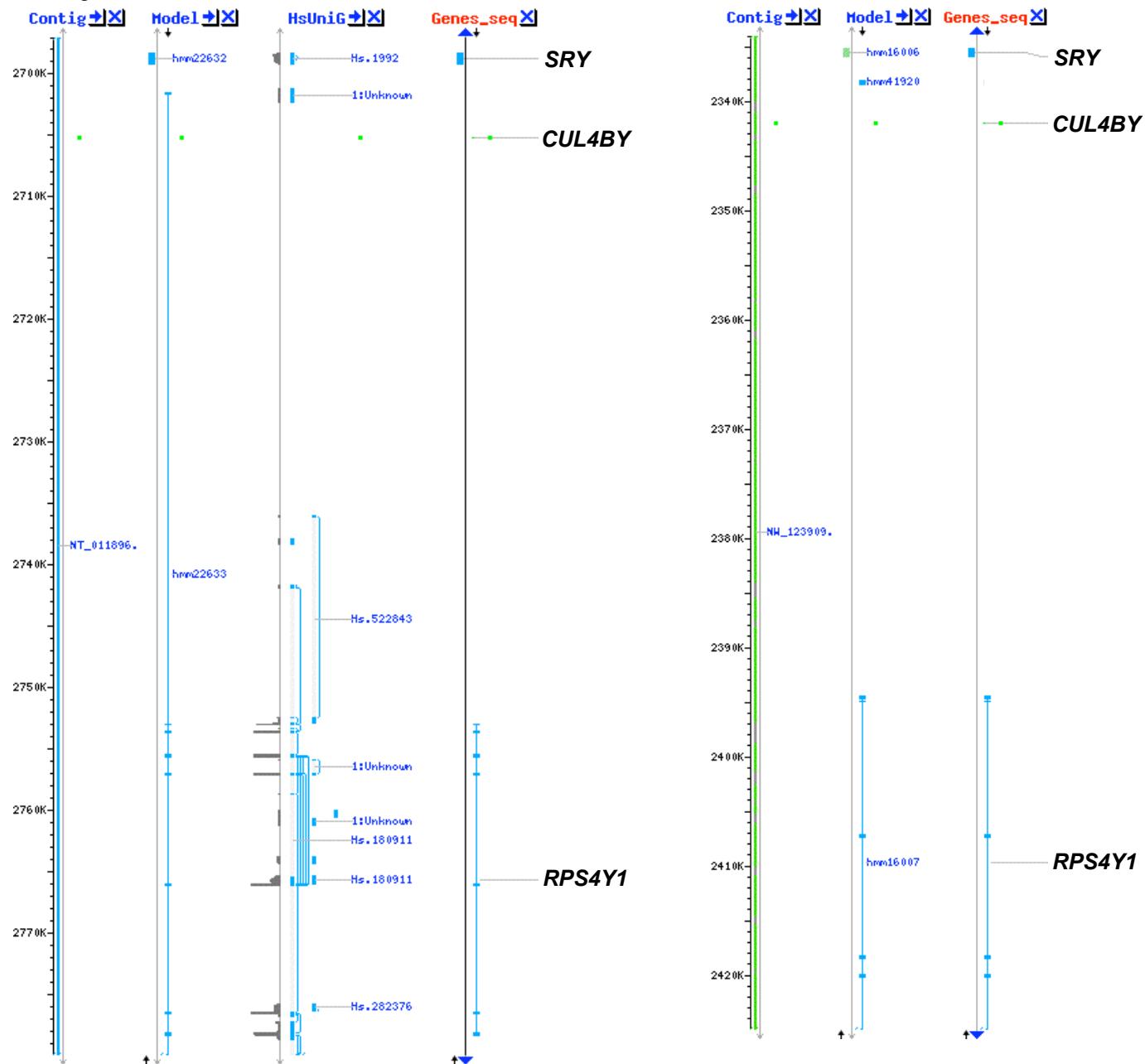


Fig. S4. Evidence for a *CUL4BY* genomic fossil on human (left) and chimp (right) Y chromosomes. The green box shows the position of a Y chromosome fragment with sequence similarity (shown below) to both the canine and feline *CUL4BY* cDNAs, and the canine X chromosome *CUL4BX* gene annotation in Build 1 of the canine genome.



Alignment of Human.chrY and canine chrX:95574167-95574288

(Upper case nucleotides indicate sites of conservation between the dog and human sequences)

Human.chrY

```
AAaCCTGtt CAGGtcACAA aGAAGCTACA GATGAAAGAAC acGAAAAAAAT TGTTGGtTAA 2705215
AATAaaActA TAacTAGgcT TATTtACGgt gAGTAaTTTC tTTTCAgCT cCaTTTAAA
```

Dog.chrX (reverse strand):

```
AAgcttGcg CAGGcaACAA gGAAGCTACA GATGAAAGAAC ttGAAAAAAAT GTTGGAATAA 31338869
AtTAtgAtcA TAttTAGatT TATcTAtGGT aGTAtTTT gTTTaaaAT tCTtCttTTA 31338809
AA
```

Side by Side Alignment*

```
02705156 aaaccttgttcaggcacaaagaagctacagatgaagaacacgaaaaattgtggtaa 02705215
<<<<< ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| <<<<<
31338928 aagcttcgcgcaggcaacaagaagctacagatgaagaacttgaaaaa-tgtggataa 31338870
```

```
02705216 aa-taaaactataactaggttatccgtgagtaattttttc---atgtccat 02705271
<<<<< ||| ||| ||| ||| ||| ||| ||| ||| <<<<<
31338869 aattatgatcatatttagatttatctatggtaagtatttgtttaaaattcttttt 31338810
```

```
02705272 aaa 02705274
<<<<< ||| <<<<<
31338809 aaa 31338807
```